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## **EUROPEAN PATENT OFFICE**

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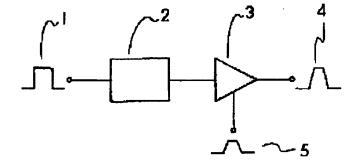
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TITLE

HIGH-FREQUENCY AMPLIFIER



ABSTRACT: PROBLEM TO BE SOLVED: To prevent the occurrence of a phase variation even in the case of the fluctuation of an input level for effectively restraining a side band by providing a transmit amplifier with a limiter for limiting the amplitude of an input high-frequency signal to a fixed value.

> SOLUTION: A high-frequency amplifier is provided with a limiter 2 which limits the amplitude of an input high-frequency signal to a fixed value by a plurality of transmit amplifiers used in an active electronic scanning type pulse radar device. In addition, the wave form 5 of a bias voltage applied to the final stage amplifying element is pulse-shapedly formed. Namely, an input high- frequency signal wave form 1 is turned into a signal having a fixed level by absorbing an input fluctuation through the limiter 2, and the above signal is inputted into an electric power amplifier 3 acting in a nonlinear domain. In this case, the wave form 5 of a bias voltage applied to the electric power amplifier 3 is made slower in a rising and a trailing speed, and an output high-frequency signal wave form 4 is made slower in a rising and a trailing speed, and the occurrence of the side band can be therefore prevented. Many electric power amplifiers 3 are arranged to form the active electronic scanning type pulse radar.

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